

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/085393 A1

(51) International Patent Classification⁷: **C10G 65/12, 45/58**

(21) International Application Number: PCT/EP2005/050857

(22) International Filing Date: 1 March 2005 (01.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 04290569.5 2 March 2004 (02.03.2004) EP

(71) Applicant (for all designated States except US): **SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.** [NL/NL]; Carel van Bylandtlaan 30, NL-2596 HR The Hague (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DUININCK, Jacob Willem** [NL/FR]; Route departementale No. 3, F-76650 Petit Couronne (FR). **POLDER, Kevin John Anthony** [NL/FR]; Route departementale No. 3, F-76650 Petit Couronne (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

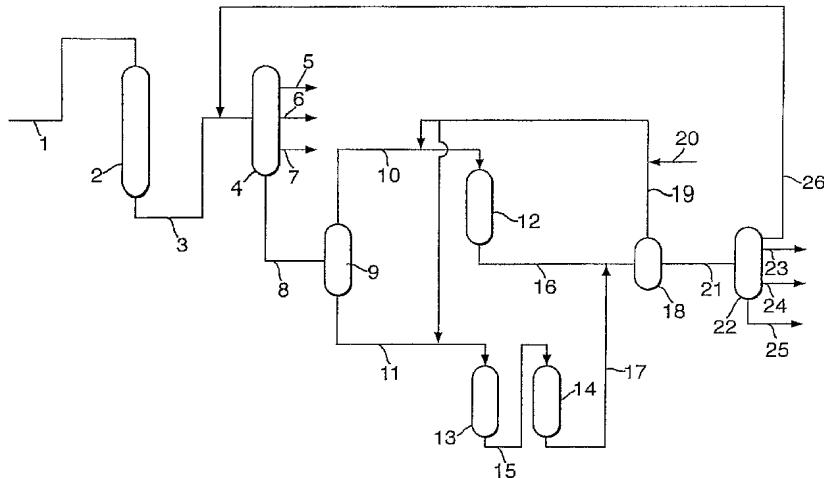
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS TO CONTINUOUSLY PREPARE TWO OR MORE BASE OIL GRADES AND MIDDLE DISTILLATES



(57) **Abstract:** Process to prepare simultaneously two or more base oil grades and middle distillates from a de-asphalting oil or a vacuum distillate feed or their mixtures by performing the following steps: (a) hydrocracking the feed, thereby obtaining an effluent; (b) distillation of the effluent as obtained in step (a) into one or more middle distillates and a residue boiling substantially above 340°C; (c) separating, by means of a further distillation step said residue into a light base oil precursor fraction and a heavy base oil precursor fraction; (d) reducing the pour point of each separate base oil precursor-fraction in two simultaneously and parallel operated catalytic dewaxing reactors obtaining a first and second dewaxed oil; (e) hydrotreating the first dewaxed oil as obtained when dewaxing the heavy base oil precursor fraction in step (d); (f) isolating from the second dewaxed oil from the light base oil precursor fraction from step (d) and the hydrotreated oil from step (e) two or more base oil grades.

WO 2005/085393 A1